ILLEGIB

Approved For Release 2001/08/20 : CIA-RDP78T05439A000300290030-8

Next 9 Page(s) In Document Exempt

Approved For Release 2001/08/20 : CIA-RDP78T05439A000300290030-8

~~TOP SECRET~~

12313

Copy 5
21 Pages

NPIC/R-234/64
April 1964

PHOTOGRAPHIC INTERPRETATION REPORT

SAM INSTALLATIONS IDENTIFIED ON KEYHOLE MISSIONS

25X1D [redacted]

Declass Review, NIMA/DoD

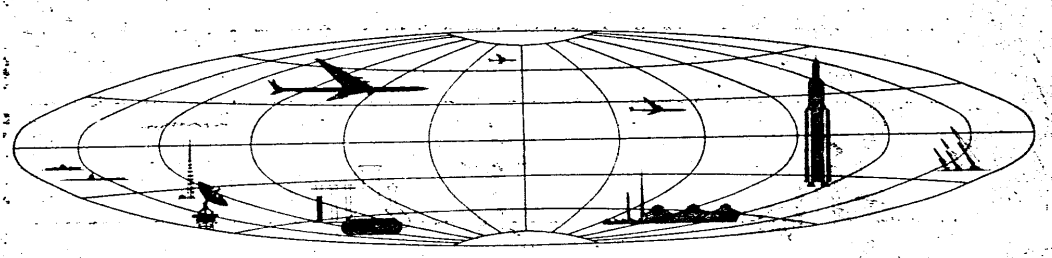
CIA DIA

Handle Via TALENT-KEYHOLE Control Only

WARNING

This document contains classified information affecting the national security of the United States within the meaning of the espionage laws U. S. Code Title 18, Sections 793 and 794. The law prohibits its transmission or the revelation of its contents in any manner to an unauthorized person, as well as its use in any manner prejudicial to the safety or interest of the United States or for the benefit of any foreign government to the detriment of the United States. It is to be seen only by personnel especially indoctrinated and authorized to receive TALENT-KEYHOLE information. Its security must be maintained in accordance with KEYHOLE and TALENT regulations.

NATIONAL PHOTOGRAPHIC INTERPRETATION CENTER



~~TOP SECRET~~

GROUP 1
Excluded from automatic downgrading and declassification

TOP SECRET RUFF

PHOTOGRAPHIC INTERPRETATION REPORT

SAM INSTALLATIONS IDENTIFIED ON KEYHOLE MISSIONS

25X1D [redacted]

NPIC/R-234/64

April 1964

NATIONAL PHOTOGRAPHIC INTERPRETATION CENTER

TOP SECRET RUFF

NPIC/R-234/64

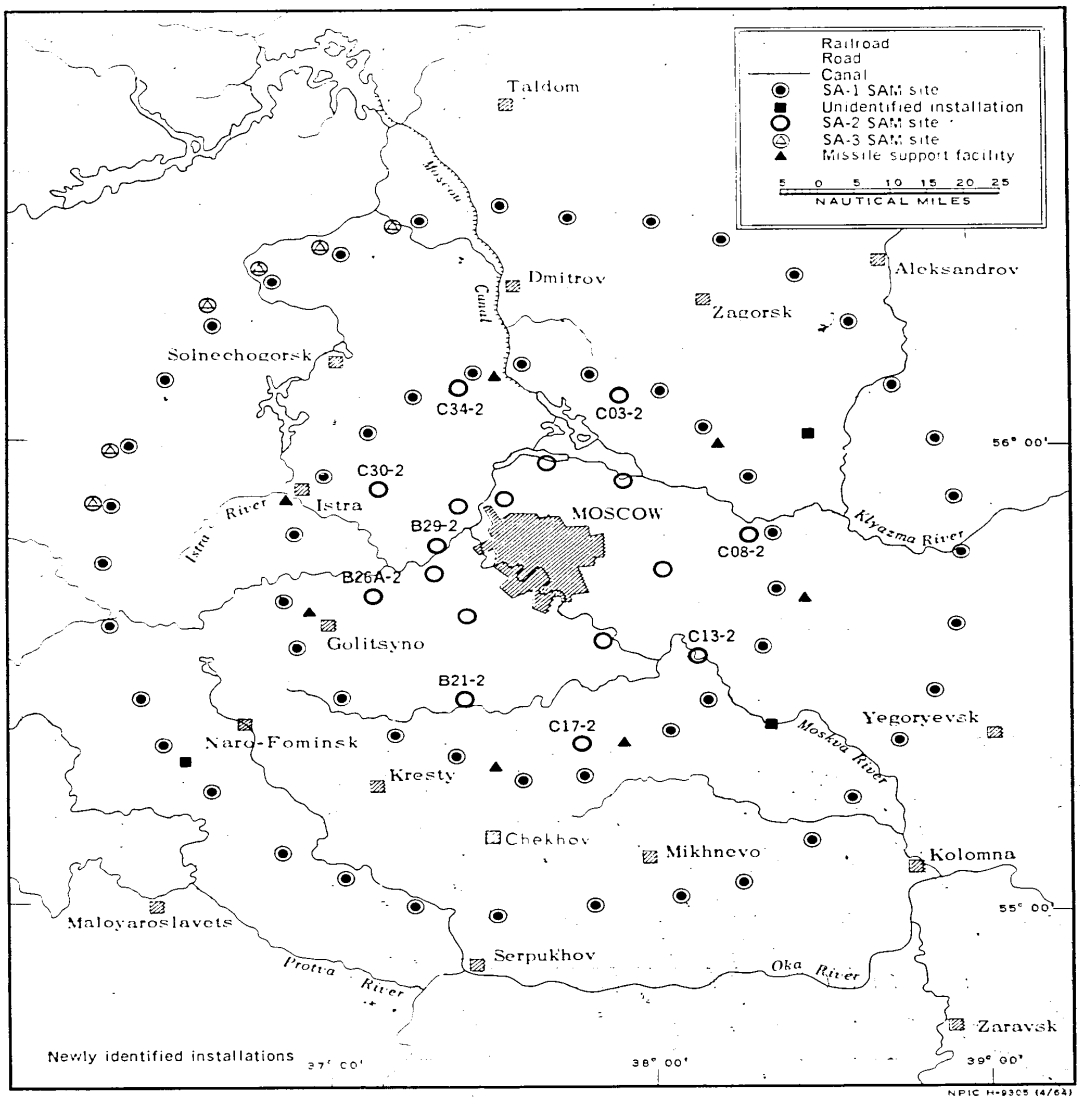


FIGURE 1. LOCATION OF NEWLY IDENTIFIED INSTALLATIONS AROUND MOSCOW.

NPIC/R-234/64

25X1D

25X1D

This report has been prepared in response to CIA requirement C-RR4-81,119, requesting information on surface-to-air missile (SAM) installations identified on photography from KEYHOLE Missions [redacted] (the cutoff date for the study on which this report is based), a total of 48 SAM installations had been identified on this coverage.

Of particular significance among these are nine SA-2 sites* around Moscow forming a new defensive ring (Figure 1). In addition, four unoccupied SA-2 sites, which probably serve as alternates to other sites, were identified in Egypt (Figure 2). Other installations identified on the missions were 9 SA-3 SAM sites,** 3 SAM support facilities, and 18 other SA-2 sites in the USSR,*** 3 SA-2 sites in Poland, one in China, and one in North Korea (Figure 3).

Table 1 presents information on the Moscow sites and Table 2 provides information on the rest of the installations. For many sites interpretation of details such as site configuration was limited by heavy snow cover. Photographs (derived from [redacted] are provided (Figures 4-42) for all except six installations, for which interpretation was limited by poor image quality. Line drawings (Figure 43) are provided for these instead.

25X1D

*including 2 possibles and one probable

**including one possible and one probable

***including one probable

NPIC/R-234/64

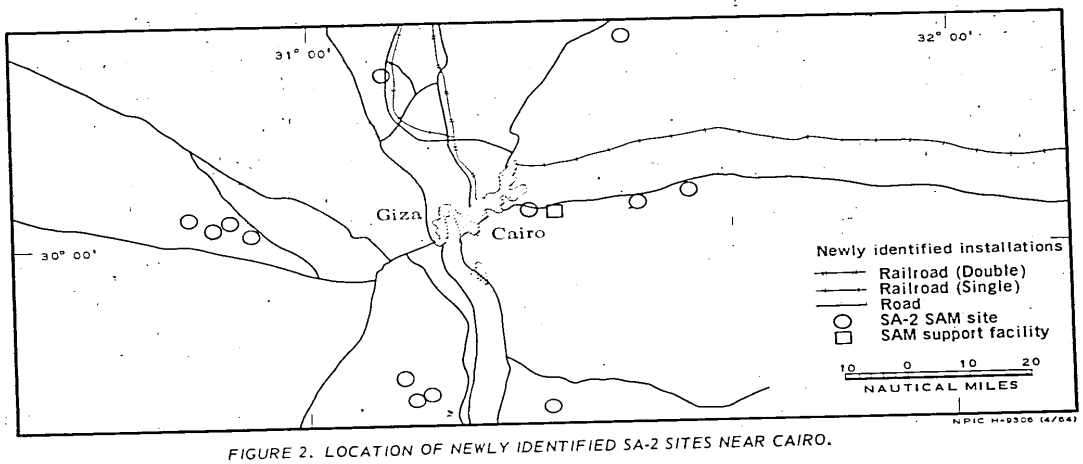


FIGURE 2. LOCATION OF NEWLY IDENTIFIED SA-2 SITES NEAR CAIRO.

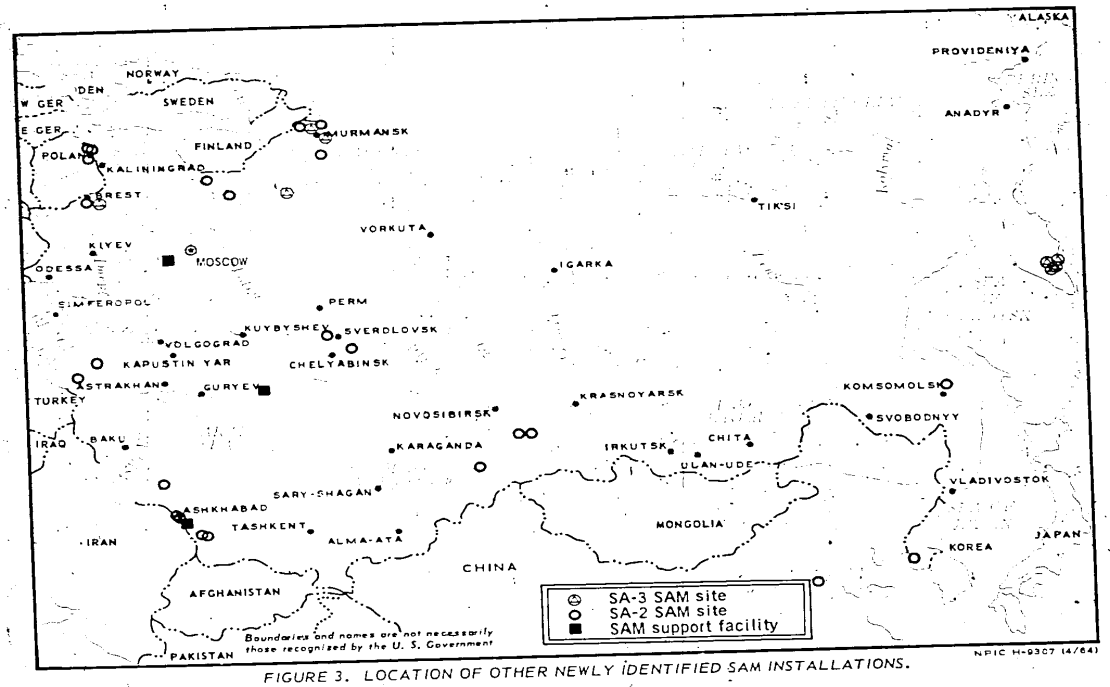


FIGURE 3. LOCATION OF OTHER NEWLY IDENTIFIED SAM INSTALLATIONS.

Approved For Release 2004/08/20 : CIA-RDP78T05439A000300290020-8

Table 1. Data on SA-2 SAM Sites Around Moscow Identified on Missions [redacted] 25X1D

SA-2 SAM Site	BE No	Geographic Coordinates	Configuration	Construction Status	Remarks	First Photographic Coverage	Negation Date	Map Reference (USATC Series 200; Sheet No, Edition Date	NPIC No	Figure No
Moscow B21-2	[redacted]	55-27-30N 37-23-00E	Snow cover precludes determination	Complete	--	[redacted]	[redacted]	0167-5HL, Apr 63	121-S	4
Moscow B26A-2		55-40-50N 37-05-40E	Snow cover precludes determination	Complete	--			0167-4HL, Apr 63	58-P	5
Moscow B29-2		55-47-50N 37-16-00E	Snow cover precludes determination	Complete	--			0167-5HL, Apr 63	58-Q	43
Moscow C08-2		55-48-50N 38-15-00E	Snow cover precludes determination	Complete	--			0167-5HL, Apr 63	121-T	43
Moscow C17-2		55-22-30N 37-46-30E	Snow cover precludes determination	Complete	--			0167-5HL, Apr 63	121-R	43
Moscow C30-2		55-54-10N 37-03-25E	Snow cover precludes determination	Complete	--			0167-4HL, Mar 63	121-Q	6
Moscow C13-2 (probable site)		55-32-22N 38-06-10E	Snow cover precludes determination	Complete	--			0167-5HL, Apr 63	121-U	43
Moscow C03-2 (possible site)		56-07-25N 37-53-20E	Snow cover precludes determination	U/C	Revetments appear square			0154-23HL, Apr 63	97-I	43
Moscow C34-2 (possible site)		56-06-10N 37-20-35E	Snow cover precludes determination	U/C	Revetments appear square			0154-22HL, Mar 63	97-H	7

25X1A

25X1A

25X1D

TOP SECRET RUFF

Approved For Release 2004/08/20 : CIA-RDP78T05439A000300290020-8

Approved For Release 2001/08/20 : CIA-RDP78T05439A000300090030-8

25X1D

NPIC/R-234/64

Table 2. Data on Other SAM Installations Identified on Missions [redacted]

Installation	BE No	Geographic Coordinates	Configuration/ Type	Construction Status	Remarks	First Photographic Coverage	Negation Date	Map Reference (USATC Series 200; Sheet No, Edition Date)	NPIC No	Figure No
USSR										
SA-2 SAM Sites										
Ashkhabad B32-2	[redacted]	38-06-35N 58-09-20E	Snow cover precludes determination	Complete	--	[redacted]		0338-14HL, Apr 63	2-J	8
25X1A Bakharden B12-2		38-19-25N 57-41-50E	Undeterminable (no internal road pattern)	Complete	--			0338-14HL, Apr 63	5-B	9
Iokanga (no designator at present)	None	68-03-00N 39-31-45E	Snow cover precludes determination	U/C	Situated near Iokanga SAM Support Facility			0051-25HL, May 63	38-F	10
Kizyl-Arvat B30-2	[redacted]	39-06-50N 55-55-55E	Undeterminable (site under construction)	Late stage	--			0338-8A, Apr 59	11-C	11
25X1A Komsomolsk B13A-2		50-24-00N 137-26-50E	Undeterminable (six revetments present)	Late stage	Situated 3 nm E of Komsomolsk SAM Site B14-2			0204-8HL, Feb 62	13-Z1	12
Kutaisi B11-2		42-12-30N 42-59-10E	Link	Complete	--			0324-15HL, May 63	7-C	13
Leningrad D36-2	[redacted]	60-27-15N 30-13-40E	Possible link	Undeterminable	--	[redacted]		0103-25HL, Jun 62	50-Z1	14
25X1A Novokuznetsk B19-2		53-34-30N 87-07-00E	Snow cover precludes determination	Complete	--			0161-17A, Sep 59	14-N	15
Novokuznetsk B34A-2		53-58-40N 86-57-40E	Undeterminable (site U/C)	U/C	Situated approximately 2,000 ft SW of Novokuznetsk B34-2			0161-12A, Jul 59	14-M	16
25X1A Pechenga B21-2		69-23-30N 30-59-30E	Snow cover precludes determination	Complete	--			0051-17AL, Dec 59	20-L	17
Pechenga (no designator at present; probable site)	None	69-31-50N 31-09-20E	Snow cover precludes determination	U/C	Collocated with Pechenga Possible SA-3 SAM Site			0051-17AL, Dec 59	20-J	18
25X1A Podporozhye B03-2	[redacted]	61-05-29N 34-21-43E	Link	Complete	--			0102-16AL, Oct 59	43-A	19

25X1D

25X1D

25X1D

25X1D

See footnote at end of table.

TOP SECRET RUFF

Approved For Release 2001/08/20 : CIA-RDP78T05439A000300290030-8

Table 2. (Continued)

Installation	BE No	Geographic Coordinates	Configuration Type	Construction Status	Remarks	First Photographic Coverage	Negation Date	Map Reference (USATC Series 200; Sheet No, Edition Date)	NPIC No	Figure No
USSR										
SA-2 SAM Sites (Continued)										
Pyatigorsk A25-2	[redacted]	43-59-11N 42-55-40E	Star	Complete	--	[redacted]		0324-5AL, Oct 59	29	20
Shatrovo A32-2		56-36-30N 64-31-00E	Star	Complete	--			0156-25HL, Nov 63	71	21
Sverdlovsk B05A-2		56-59-15N 60-51-30E	Link	Late stage	--			0156-18HL, Jun 63	39-J	22
Tedzhen B07-2		37-29-20N 61-01-05E	Possible link	Complete	--			0337-16A, May 60	18-B	23
Tedzhen C21-2		37-11-35N 60-03-10E	Possible link	Complete	--			0337-16A, May 60	18-A	24
Zyryanovsk C28-2		49-44-20N 83-36-15E	Snow cover precludes determination	Complete	--			0239-13HL, Jan 63	13-D	25
SA-3 SAM Sites										
Murmansk D05-3	[redacted]	69-20-45N 34-00-00E	G	Complete	Orientation 320°; site singly deployed	[redacted]		0051-18HL, Apr 63	12-Y	26
Pechenga (no designator at present; possible site)	None	69-31-35N 31-09-30E	Snow cover precludes determination	U/C	Snow cover precludes determination of orientation; site collocated with Pechenga Probable SA-2 SAM Site			0051-17AL, Dec 59	20-K	18
Petropavlovsk-Kamchatskiy A06-3	[redacted]	53-05-10N 158-51-25E	Snow cover precludes determination	Complete	Collocated with Petropavlovsk-Kamchatskiy SAM Site A06-2			0194-17A, Jun 58	11-F1	27
Petropavlovsk-Kamchatskiy A16-3		52-55-10N 158-45-20E	F	Complete	Collocated with Petropavlovsk-Kamchatskiy SAM Site A16-2			0194-17A, Jun 58	12-N	28
Petropavlovsk-Kamchatskiy (no designator at present)	None	53-08-00N 158-23-00E	C	Complete	Singly deployed			0194-17A, Jun 58	12-P	29

See footnote at end of table.

25X1A 25X1A 25X1A 25X1D 25X1D

TOP SECRET RUFF

TOP SECRET RUFF

NPIC/R-234/64

Approved For Release 2001/08/20 : CIA-RDP78T05439A000300290030-8

Approved For Release 2001/08/20 : CIA-RDP78T05439A000300300030-8

Table 2. (Continued)

Installation	BE No	Geographic Coordinates	Configuration/ Type	Construction Status	Remarks	First Photographic Coverage	Negation Date	Map Reference (USATC Series 200; Sheet No, Edition Date)	NPIC No	Figure No
USSR										
SA-3 SAM Sites (Continued)										
Petropavlovsk-Kamchatskiy (no designator at present; probable site)	None	52-55-15N 158-30-10E	Snow cover precludes determination	Complete	Singly deployed	[redacted]		0191-17A, Jun 58	12-O	30
Pruzhany B06-3	[redacted]	52-40-00N 24-28-20E	F	Complete	Orientation approximately 310°; singly deployed			0168-22HL, Feb 63	64-G	43
Severodvinsk A20-3		64-27-00N 39-45-00E	Snow cover precludes determination	Complete	Snow cover precludes determination of orientation; site collocated with Severodvinsk SAM Site A20-2			0092-22HL, Mar 63	7-F1	31
Volkovysk A36-3		53-10-10N 24-28-00E	Snow cover precludes determination	Complete	Orientation approximately NW (snow cover limits interpretation); site singly deployed			0168-17HL, Dec 62	80-G	32
SAM Support Facilities										
Alga	[redacted]	49-55-00N 57-25-00E	Type II	Complete	--	[redacted]		0236-14A, Nov 59	1-J	33
Ashkhabad		37-58-20N 58-24-19E	Type II	Complete	--			0338-14HL, Apr 63	2-K	34
Tula		54-09-50N 37-34-20E	Type I	Complete	--			0167-15A, Oct 58	83-F	35
EGYPT										
SA-2 SAM Sites										
Cairo (no designator at present)	None	29-47-40N 31-09-00E	See Remarks	Undeterminable	Probable alternate to Cairo SAM Site B21-2	Sites consist of scars for 6 launch positions and central guidance area. No revetting present. No internal road pattern or on-site support facilities discern-	[redacted]	0447-11AL, May 61	23-A1	36
Cairo (no designator at present)	None	29-48-00N 31-09-10E (approximately)	See Remarks	Undeterminable	Probable alternate to Cairo SAM Site B21-2			0447-11AL, May 61	23-A	36
Cairo (no designator at present)	None	30-02-45N 30-52-20E	See Remarks	Undeterminable	Probable alternate to Cairo SAM Site B27-2			0447-11AL, May 61	2-B3	37

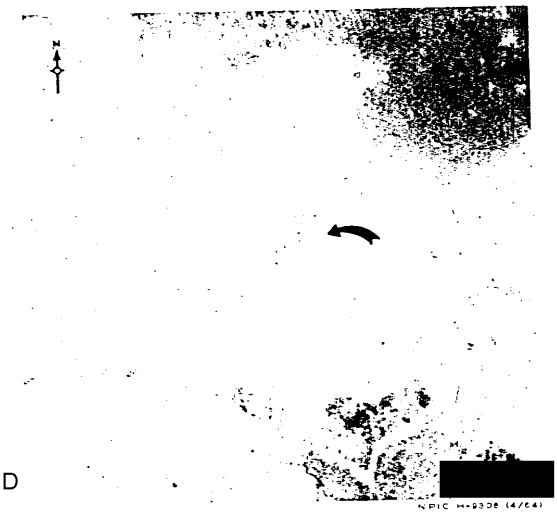
See footnote at end of table.

Approved For Release 2004/08/20 : CIA-RDP78T05439A000300090030-8

Table 2. (Continued)

Installation	BE No	Geographic Coordinates	Configuration Type	Construction Status	Remarks	First Photographic Coverage	Negation Date	Map Reference (USATC Series 200; Sheet No; Edition Date)	NPIC No	Figure No	
EGYPT											
SA-2 SAM Sites (Continued)											
Cairo (no designator at present)	None	30-02-00N 30-52-50E	See Remarks	Undetermined	Probable alternate to Cairo SAM Site B27-2	[redacted] ible. Absence of equipment indicates sites probably are inoperational and alternates to other sites	[redacted]	0447-11AL, May 61	2-B2	37	25X1D
POLAND											
SA-2 SAM Sites											
Gdansk A11-2	[redacted]	54-21-20N 18-49-00E		Complete	--	[redacted]	[redacted]	0169-14AL, Feb 62	37-A	38	25X1D
25X1A Gdansk B03-2		54-37-00N 18-48-40E		Complete	--			0169-9HL, Nov 63	38-D	39	
Gdansk C34-2		54-41-45N 18-25-00E		Complete	--			0169-9HL, Nov 63	37-B	40	
CHINA											
SA-2 SAM Site											
25X1A Peiping C18-2	[redacted]	39-34-00N 116-24-40E	Link	Complete	--	[redacted]	[redacted]	0381-1AL, Jan 63	50-Z6	41	25X1D
NORTH KOREA											
SA-2 SAM Site											
25X1A Pyongyang B23-2	[redacted]	38-48-00N 125-27-50E	Link	Complete	--	[redacted]	[redacted]	0380-7AL, Oct 62	11-L1	42	

*See Table 1 for data on Moscow sites.



25X1D

FIGURE 4. MOSCOW SAM SITE B21-2.

25X1D

FIGURE 5. MOSCOW SAM SITE B26A-2.

25X1D

FIGURE 6. MOSCOW SAM SITE C30-2.

25X1D

FIGURE 7. MOSCOW POSSIBLE SAM SITE C34-2.

25X1D

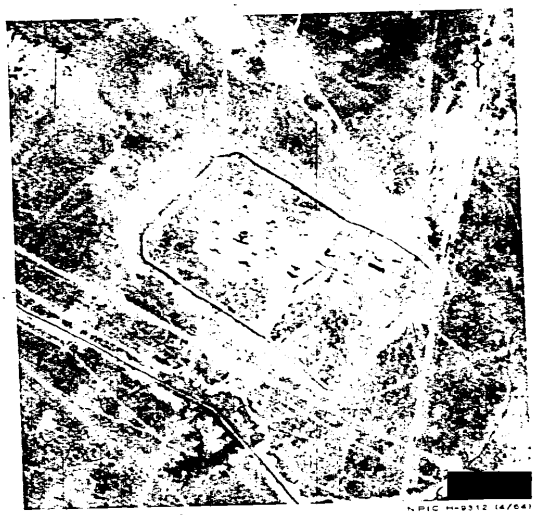
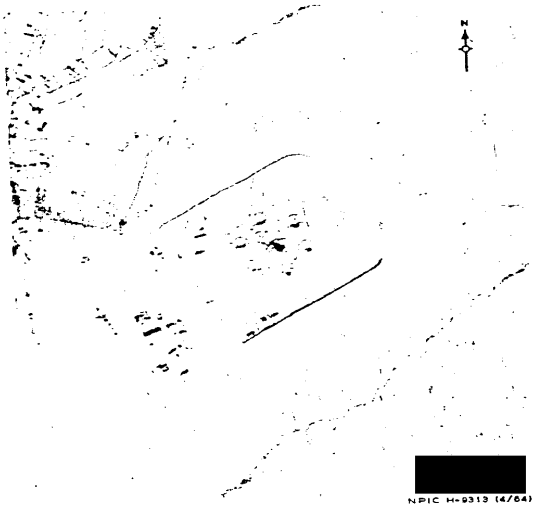


FIGURE 8. ASHKHABAD SAM SITE B32-2.



25X1D

FIGURE 9. BAKHARDEN SAM SITE B12-2.

25X1D

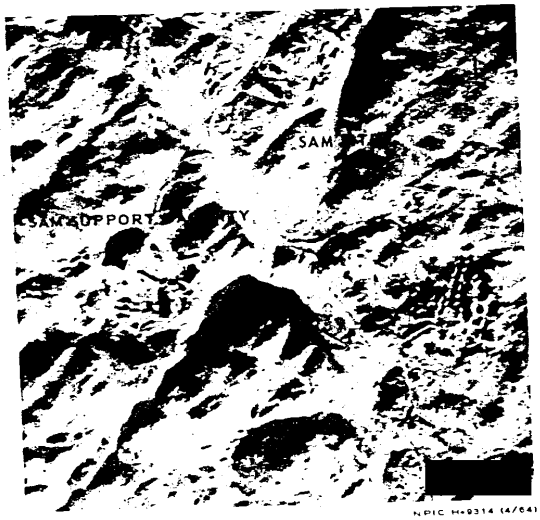


FIGURE 10. IOKANGA SA-2 SAM SITE (NO DESIGNATOR AT PRESENT).

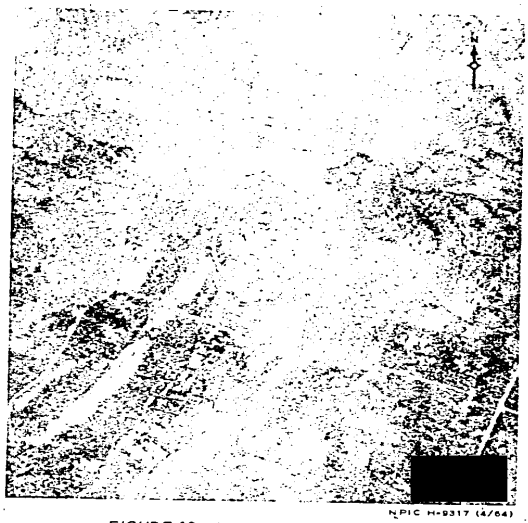
25X1D

FIGURE 11. KIZYL-ARVAT SAM SITE B30-2.

NPIC/R-234/64

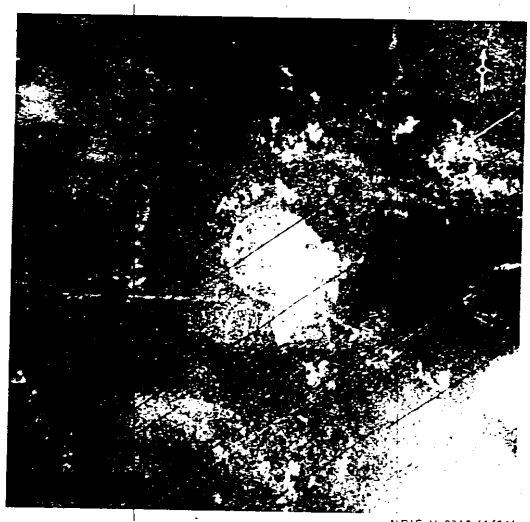
25X1D

FIGURE 12. KOMSOMOLSK SAM SITE B13A-2.



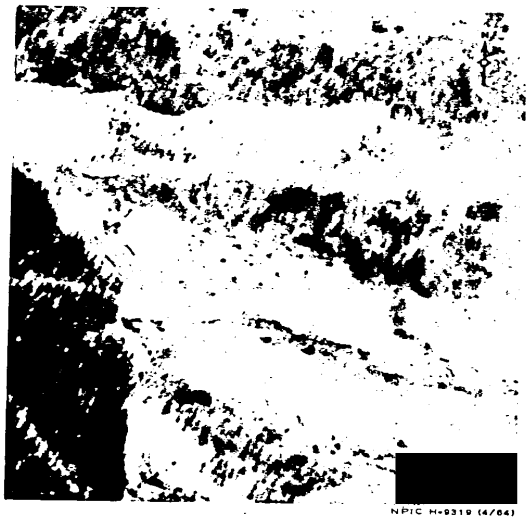
25X1D

FIGURE 13. KUTAISI SAM SITE B11-2.



25X1D

FIGURE 14. LENINGRAD SAM SITE D36-2.



25X1D

FIGURE 15. NOVOKUZNETSK SAM SITE B19-2.

25X1D

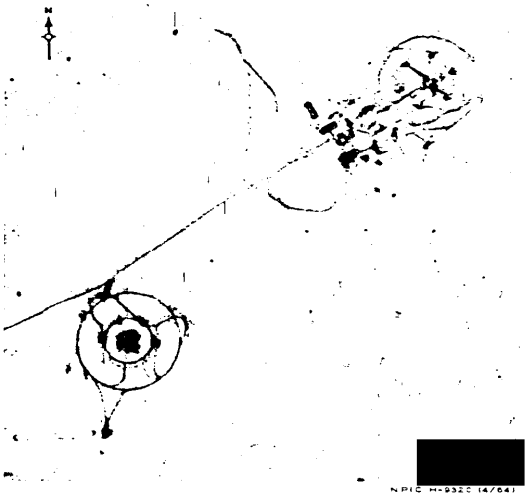


FIGURE 16. NOVOKUZNETSK SAM SITE B34A-2.

25X1D

FIGURE 17. PECHENGA SAM SITE B21-2.

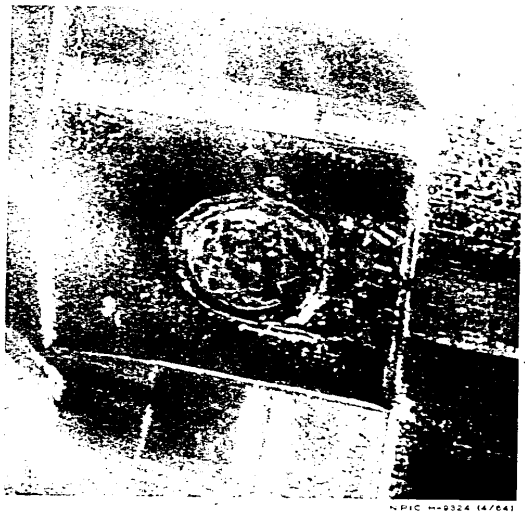
25X1D

FIGURE 18. PECHENGA PROBABLE SA-2 SAM SITE AND PECHENGA POSSIBLE SA-3 SAM SITE (NO DESIGNATORS AT PRESENT).

FIGURE 19. PODPOROZHYE SAM SITE B03-2.

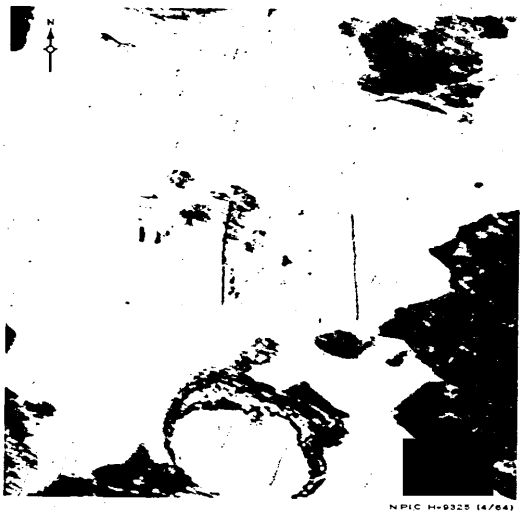
25X1D

NPIC R-234/64



25X1D

FIGURE 20. PYATIGORSK SAM SITE A25-2.

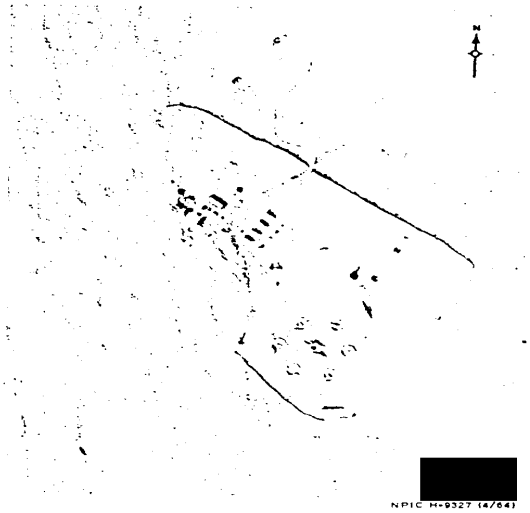


25X1D

FIGURE 21. SHATROVO SAM SITE A32-2.

25X1D

FIGURE 22. SVERDLOVSK SAM SITE B05A-2.



25X1D

FIGURE 23. TEDZHEN SAM SITE B07-2.

25X1D

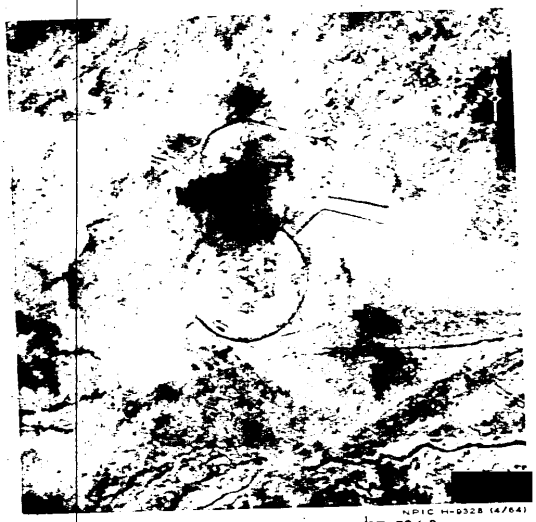


FIGURE 24. TEDZHEN SAM SITE C24-2.

25X1D

FIGURE 25. ZYRYANOVSK SAM SITE C28-2.

25X1D

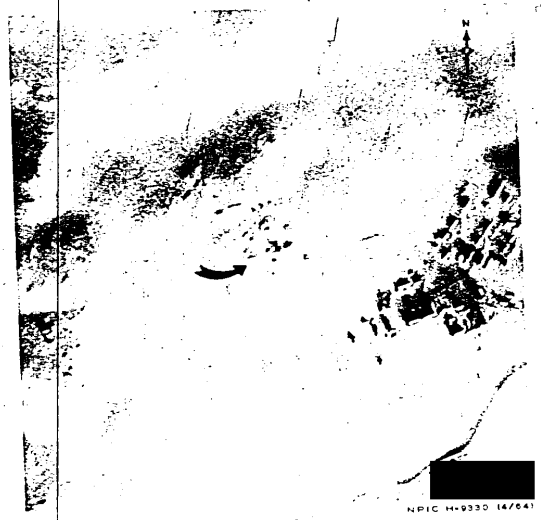
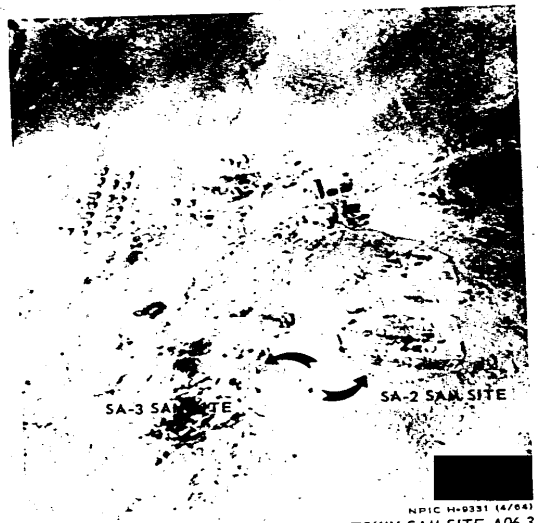


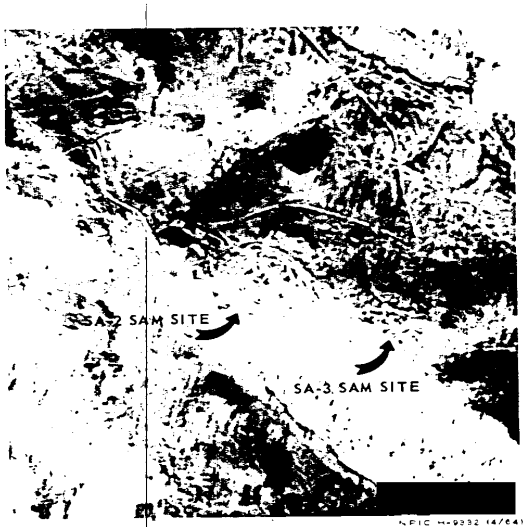
FIGURE 26. MURMANSK SAM SITE D05-3.



25X1D

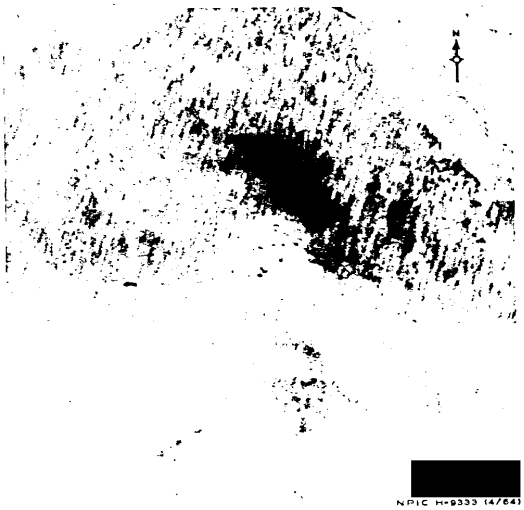
FIGURE 27. PETROPAVLOVSK-KAMCHATSKIY SAM SITE A06-3.

NPIC/R-234/64



25X1D

FIGURE 28. PETROPAVLOVSK-KAMCHATSKIY SAM SITE A16-3.

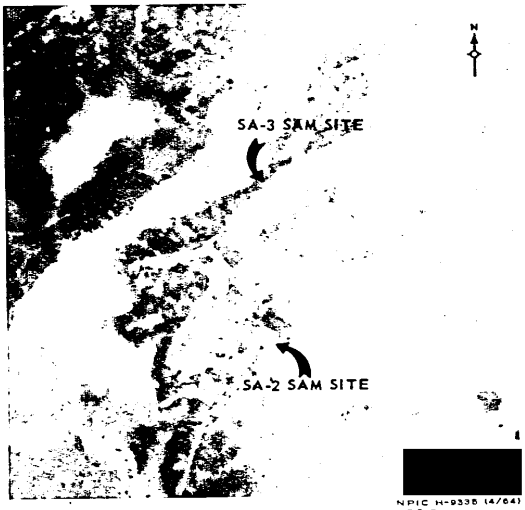


25X1D

FIGURE 29. PETROPAVLOVSK-KAMCHATSKIY SA-3 SAM SITE (NO DESIGNATOR AT PRESENT).

25X1D

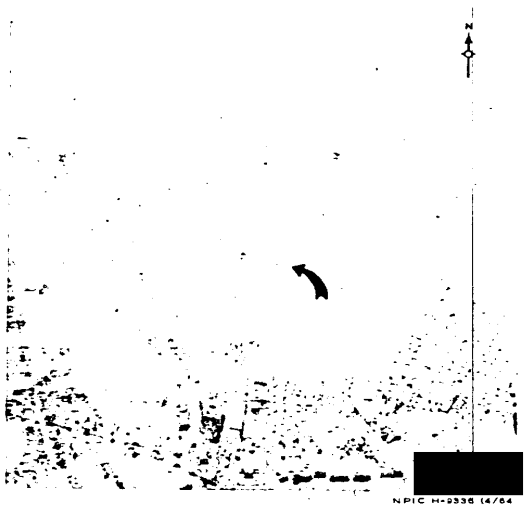
FIGURE 30. PETROPAVLOVSK-KAMCHATSKIY PROBABLE SA-3 SAM SITE (NO DESIGNATOR AT PRESENT).



25X1D

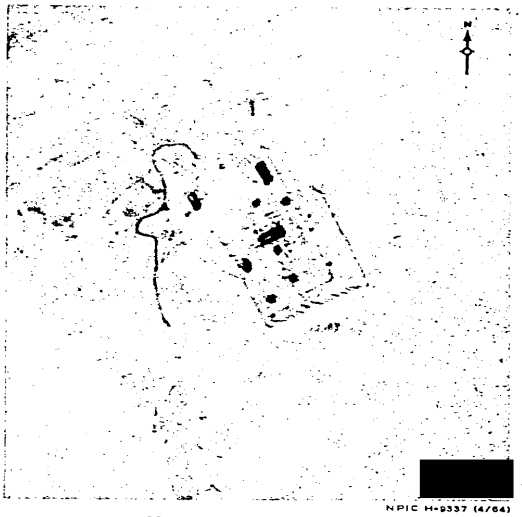
FIGURE 31. SEVERODVINSK SAM SITE A20-3.

25X1D



NPIC H-9336 (4/64)

FIGURE 32. VOLKOVYSK SAM SITE A36-3.



NPIC H-9337 (4/64)

25X1D

FIGURE 33. ALGA SAM SUPPORT FACILITY.

25X1D

NPIC H-9338 (4/64)

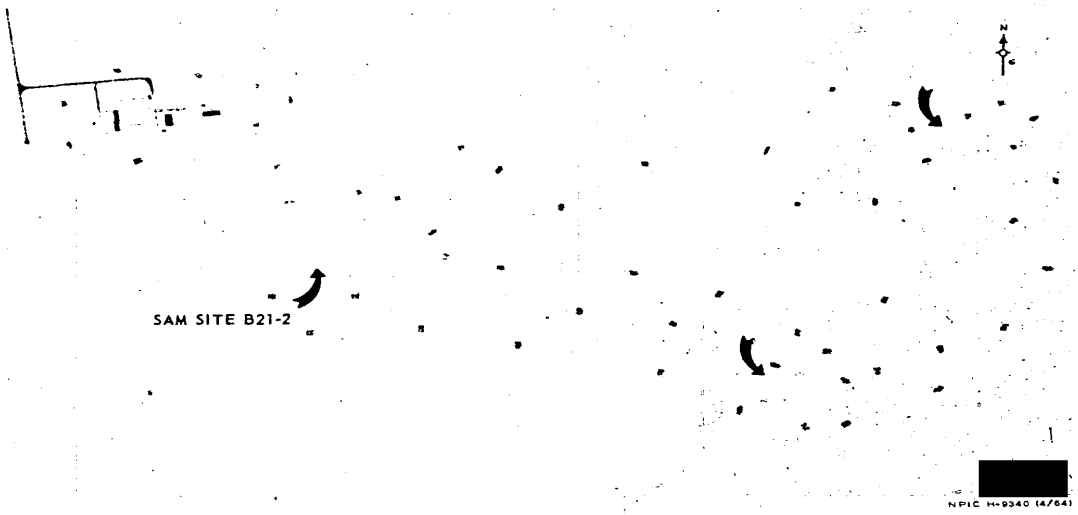
FIGURE 34. ASHKHABAD SAM SUPPORT FACILITY.

NPIC H-9339 (4/64)

25X1D

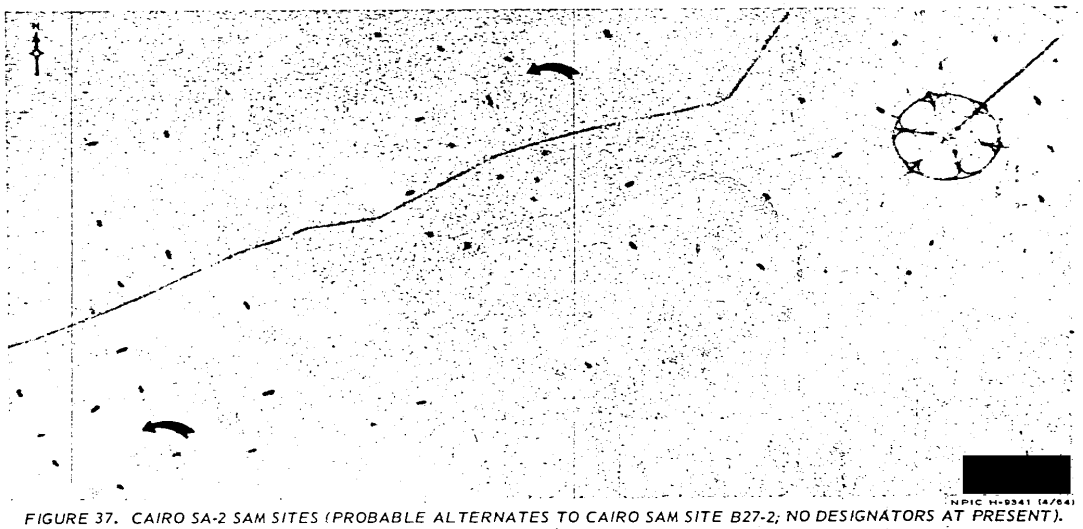
FIGURE 35. TULA SAM SUPPORT FACILITY.

NPIC/R-234/64



25X1D

FIGURE 36. CAIRO SA-2 SAM SITES (PROBABLE ALTERNATES TO CAIRO SAM SITE B21-2; NO DESIGNATORS AT PRESENT).



25X1D

FIGURE 37. CAIRO SA-2 SAM SITES (PROBABLE ALTERNATES TO CAIRO SAM SITE B27-2; NO DESIGNATORS AT PRESENT).

[redacted]

25X9

[redacted]

25X9

25X1D

FIGURE 41. PEIPING SAM SITE C18-2.

NPIC/R-234/64

FIGURE 42. PYONGYANG SAM SITE B23-2.

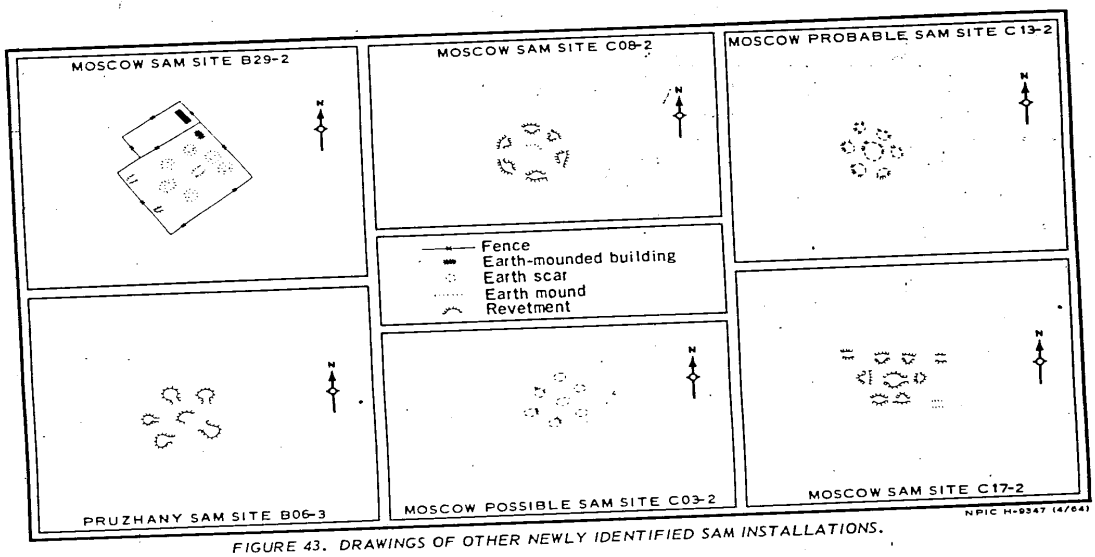


FIGURE 43. DRAWINGS OF OTHER NEWLY IDENTIFIED SAM INSTALLATIONS.